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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,990	02/19/2002	Chi Lam Wong	USP1787A-CLW	7105
7590 11/25/2003 RAYMOND Y. CHAN 1050 OAKDALE LANE ARCADIA, CA 91006			EXAMINER PRICE, CARL D	
			ART UNIT 3749	PAPER NUMBER

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/079,990

Applicant(s)

WONG, CHI LAM

Examiner

CARL D. PRICE

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) 17-20,25-34,38 and 45-63 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16,21-24 and 39-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election **without** traverse of the species of Figures 5-7 in Paper No. 8 is acknowledged.

Claims 17-20, 25-34 and 38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected specie, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 8.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in China on 06-25-2001. It is noted, however, that applicant has not filed a certified copy of the **CH 01246118.0** application as required by 35 U.S.C. 119(b). Certified copies the three remaining applications filed in China have been received and placed in the file.

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate

paper." Therefore, **unless** the references have been cited by the examiner on form PTO-892, or by applicant on form PTO-1449, they have not been considered.

Disclosure

The disclosure is objected to because of the following informalities: The disclosure does not include a written description of reference characters "46B" (Figure 7), "M" or "N" (Figures 7 and 10), respectively, which appears in drawing Figures.

Appropriate correction is required.

35 U.S.C. 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by

"such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 7-10 recite the broad recitation "spaced apart for 1.5mm or less", and the claims also recite "a size equal to 0.0 mm to 1.15 mm" which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-16, 21-24, 35-37, 39-44 rejected under 35 U.S.C. 103(a)

Claims 1-16, 21-24, 35-37 and 39-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over in view of JP '434 (Japanese 05-240434) in view of Lonergan.

JP '434 shows and discloses (figure 7) a fuel nozzle assembly including a nozzle body having a root opening and root chamber (29, for example), an emitting opening, an air inlet (L), wherein said air inlet is positioned adjacent to said root opening to define an elongated mixing chamber (K) axially extended between the air inlet to the emitting opening. JP '434 shows a combustion housing (F; figure 5) supported around the emitting opening of the nozzle body defining an ignition chamber (see 20) therein; and a single (R), or a plurality (18), of elongated nozzle ducts, each having an ignition end and a root end extending to a ceiling of the root chamber. JP '434 also discloses a torch stabilizing arrangement, in the form of elongated (gear shaped) emitting openings (Q) providing a plurality of root flame (illustrated in figures 6 and 7) portions which form stable root flames for igniting the mixture gas ejected from the ignition ends of the nozzle ducts for stabilizing and holding the spaced flames. JP '434 relies on a having a micro nozzle pore and filter (10, 11, 12) arrangement for vaporizing and delivering liquefied fuel from a valved container to a flame head in a windproof lighter having a combustion chamber and ignition means. JP '434 includes a casing having a liquid fuel gas storage and a fuel valve which is actuated by a fuel lever pivotally mounted in the casing for releasing fuel there from toward and ignition unit generating sparks. JP '434 however does not disclose a mixing chamber diameter of 1 mm to 2.5 mm, a micro nozzle pore diameter of 0.05 mm to 0.12 mm, a "mesh" filter, and the duct spacing as set forth in applicant's claims.

Lonergan teaches, from the same nozzle field of endeavor as JP '434, a fuel nozzle assembly including a nozzle body having a root opening and root chamber (within 24), an emitting opening (28', for example), an air inlet (24), wherein said air inlet is positioned adjacent to said root opening to define an elongated mixing chamber (21') axially extended between the air inlet to the emitting opening. Lonergan shows a combustion housing (27) supported around the emitting opening of the nozzle body and defines an ignition chamber therein; and a plurality of elongated nozzle ducts (25, 25a, 25^x), each having an ignition end and a root end extending to a ceiling of the root chamber. Lonergan also discloses a torch stabilizing arrangement providing a plurality of root flames (26, 26a, 26x) to form stable root flame (see figures 4a, 4b, 7a) portions which form stable root flames for igniting the mixture gas ejected from the ignition ends of the nozzle ducts for stabilizing and holding the spaced flames. The plurality of elongated ducts of Lonergan are disclosed as optionally arranged parallel (25), or diverging (25a, 25x).

In regard to claims 1-16, 21-24, 35-37 and 39-44, for the purpose of providing a suitable optional arrangement for the nozzle duct of JP '434, it would have been obvious to a person having ordinary skill in the art to modify the single duct of JP '434 to be at least two diverging ducts, to increase the number of torch flames and flame stability, in view of the teaching of Lonergan. In regard to claims 1 and 6-10, in particular, since the mixing chamber diameter, a micro nozzle pore, filter material, and the duct spacing for a given burner head arrangement would depend necessarily depend on numerous design concerns such as the type of fuel burned, the overall size and shape of the burner, desired flame size, etc., to select the mixing chamber diameter of 1 mm to 2.5 mm, a micro nozzle pore diameter of 0.05 mm to 0.12 mm, a "mesh"

filter, and the duct spacing as set forth in applicant's claims, can be viewed as nothing more than a mere matter of choice in design absent the showing of any new or unexpected results therefrom over the prior art of record.

Conclusion


See the attached PTO FORM for prior art made of record that is not relied upon, which is considered pertinent to applicant's disclosure.

USPTO CUSTOMER CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARL D. PRICE whose telephone number is 703-308-1953. The examiner can normally be reached on Monday through Friday between 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, can be reached on 703-308-1935. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-1148/0858.


CARL D. PRICE
Primary Examiner
Art Unit 3749